

## CIRCUIT CITY

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January 25, 1994

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Donna R. Searcy  
Secretary  
Federal Communications Commission  
1919 M Street N.W.  
Room 222  
Washington, DC 20554

RE: ET Docket No. 93-7

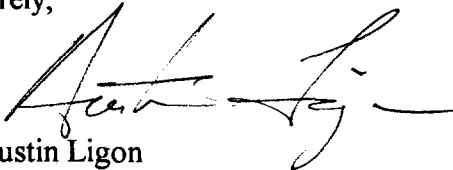
Dear Madame Secretary:

Enclosed for filing are an original and nine copies of comments of Circuit City Stores, Inc. in the matter noted above.

An additional copy to be date stamped and returned with the messenger for our files is also enclosed.

Thank you for your assistance.

Sincerely,



W. Austin Ligon

WAL:cda

Enclosures

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Implementation of Section 17 )  
of the Cable Television )  
Consumer Protection and )  
Competition Act of 1992 )  
 )  
Compatibility Between )  
Cable Systems and Consumer )  
Electronics Equipment )

ET Docket No. 93-7

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**CIRCUIT CITY STORES, INC. COMMENTS  
ON NOTICE OF PROPOSED RULE MAKING**

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## SUMMARY

Circuit City Stores, Inc. supports the Commission's efforts to maximize compatibility between cable systems and consumer electronics equipment. As the nation's largest retailer of branded consumer electronics, Circuit City retains these concerns:

- Cable operators may yet have incentives to furnish set-top devices and decoder/descramblers in ways that preclude any retail competition; and
- There are more specific, efficient, and pro-competitive ways to accomplish the Commission's objective.

Circuit City urges specific measures to minimize the preemption of competitive markets:

- (1) Only functions directly and necessarily related to security should be reserved to system hardware/software provided by the cable operator;
- (2) Functions that can be offered on a competitive basis must be available competitively, through the offer by the cable operator of compatible hardware or software modules that perform the security function only; and
- (3) Cable operators should be allowed to charge separately for security modules and, to avoid extension of monopoly into competitive markets, should not be allowed to "bundle" the price of competitive hardware with services.

The "bundling" of consumer electronics goods with services makes monopoly a function of economic considerations that are seldom transparent to regulators. Paragraph 30 of the Notice still leaves the system operator a choice as to the features and functionality to be built into the decoder/descrambler devices that it is required to provide. As decoder interface TVs and VCRs appear, and

cable operators are required to provide descrambler/decoder modules, they may (despite the rate disincentive) seek to extend a monopoly of the "set-top" market by building as many functions and features as possible into these decoder/descrambler devices.

Neither the set-top nor the decoder/descrambler market need be monopolized. The Commission's final rules should require that a cable operator must offer to consumers hardware or software modules that perform only the security function that makes an operator monopoly necessary in the first place. An operator could comply with the Notice, as presently written, yet offer subscribers only an integrated "box" that performs (a) security, (b) digital decompression, and (c) menus and program selection, preempting the hardware market for (b) and (c).

Program operators asserting a need for monopoly over signal security function (a) ought to be required to offer that function in a separate hardware or software module (a), to avoid redundancy with consumer electronics equipment capable of performing (b) and (c). See, e.g., the Reply Comments of the Titan Corporation, filed in this proceeding on August 10, 1993.

Circuit City sees this proceeding as setting the mold for a crucial aspect of the National Information Infrastructure. Allowing information distributors unnecessary monopolies over hardware interfaces would set the wrong precedent for the NII.

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ET Docket No. 93-7

**COMMENTS OF CIRCUIT CITY STORES, INC.  
ON NOTICE OF PROPOSED RULE MAKING**

Circuit City Stores, Inc. respectfully submits these comments in response to the Federal Communications Commission ("FCC" or "Commission") December 1, 1993 Notice of Proposed Rule Making ("Notice") in the above-captioned proceeding. Circuit City lauds the Commission's efforts in proposing thoughtful and comprehensive rules to maximize compatibility between cable systems and consumer electronics equipment. The Company supports most of the Commission's proposal, subject to the specific concerns and exceptions discussed below.

**I. THE NOTICE DOES NOT SUFFICIENTLY PROVIDE FOR THE  
COMPETITIVE MARKET IN CABLE BOXES REQUIRED BY SECTION  
624A(c)(2)(C) OF THE COMMUNICATIONS ACT.**

As the nation's largest retailer of branded consumer electronics, Circuit City is concerned about the possibility that this proceeding, and those that inevitably will follow

with respect to other media and information systems (as the National Information Infrastructure comes together), may result in an effective monopoly by program distributors over customer premises devices that can and should be available competitively. This would be opposite to the intention of the drafters of Section 624A of the Communications Act. In this respect Circuit City applauds the goals of the Commission, but believes the specific approaches taken in the Notice are insufficiently clear or direct in effect.

Earlier in this proceeding, Circuit City addressed the importance of consumer choice and competition, as core matters of compatibility. In a letter to Chairman Quello dated August 4, 1993, we said:

We believe that Congress clearly intended that consumer choice and benefit be maximized by mandating that all in-home equipment be freely available in the commercial marketplace and subject to benefits of vigorous competition. We urge you to require cable companies to fully implement this intent.

Circuit City has a direct and immediate interest in whether markets for "set-top" and (as envisioned in the Notice) "decoder/descrambler" devices are going to be monopolized by program distributors, or open to retail competition. Based in Richmond, Virginia, Circuit City has nearly 300 retail outlets nationwide. In its current fiscal year Circuit City will sell about \$4 billion in merchandise, more than 80 percent of which is in branded consumer electronics, including video, audio, telecommunications, and personal computer equipment. We sell, to the general

public, America's major brands of personal computers, including Apple, AST, Compaq, IBM, Packard Bell, and others.

In Circuit City's view, there is little point in worrying about "compatibility" between consumer electronics products and cable TV services if the program distributor is to be granted a monopoly on providing both the service and the consumer electronics. If every information and media distributor is encouraged to furnish unique hardware that is non-standard and not competitively available, the National Information Infrastructure ("NII") cannot be achieved. If Circuit City can sell IBM and Apple computers, there is no reason to preclude Circuit City from selling digital gateways to the NII built directly for consumers by these companies and others.

The Notice follows the basic recommendation of the Consumer Electronics-Cable Compatibility Advisory Group ("CAG") that a "decoder interface" be planned for which "decoder/descrambler" modules will be supplied by cable operators. The Commission does not take sufficient steps, however, to assure that either new "set-top" markets -- new digital converters providing services to existing TVs and VCRs -- or planned decoder/descrambler modules are subject to competition and available at retail. By being slightly more specific, the Commission can easily extend the benefits of competition to these markets, without sacrificing any legitimate interests of cable operators.



With respect to "set-top" devices, the Notice, in paragraph 12, requires that supplemental equipment be available to enhance compatibility to the extent possible, subject to separate charge. The Notice takes no steps, however, pursuant to Section 624A(c)(2)(C) of the Communications Act, to provide for competition in the supply of the "boxes" themselves. Whether or not there is a "decoder interface," there will be millions of digital, new-generation, more expensive and sophisticated set-top boxes provided to customers with existing TVs and VCRs, and future sets that are not "cable ready." There is no reason to consign these devices to monopoly control by cable and, ultimately, telephone program and information distributors, only because these companies have a security concern over information carried by the network.

With respect to the planned decoder/descrambler devices, the Notice apparently intends to discourage such monopolization by indirection. Paragraph 30 states that cable operators will be required to supply a "component descrambler/decoder" without a separate charge to all subscribers owning equipment having a Decoder Interface connector. The Commission reasons that faced with such a bundled expense and unable to make a separate charge for it, the operator will be encouraged to switch to a delivery method providing all purchased signals "in the clear."

Circuit City is concerned about this approach for several reasons:

- Encouraging the "bundling" of services and consumer electronic devices sets a frightening precedent for the National Information Infrastructure, where the Federal goal is to encourage standards and open competition;
- While cable operators may not charge separately for decoder/descrambler devices, they may still retain sufficient incentives to furnish these devices themselves, in ways that preclude any retail competition; and
- There are more specific, efficient, and pro-competitive ways to accomplish the Commission's objective; examples are already in the record of this proceeding.

Circuit City urges the Commission to take affirmative steps, clearly within its power and easily accomplished, to minimize the extent to which cable operators may preempt competitive markets for set-top and decoder/descrambler devices. The principles we suggest would in some respects be less burdensome for cable operators than the means described in the Notice, and more practical for the Commission to administer as well.

Circuit City proposes that three basic principles should govern the ability of cable operators to provide both set-top and decoder/descrambler customer-premises equipment:

- (1) Only functions directly and necessarily related to security should be reserved to system hardware/software provided by the cable operator;
- (2) Functions that can be offered on a competitive basis must be available competitively, through the offer by the cable operator of compatible hardware or software modules that perform the security function only; and
- (3) Cable operators should be allowed to charge separately for security modules and, to avoid extension of monopoly into competitive markets, should not be allowed to "bundle" the price of competitive hardware with services.

**II. THE COMMISSION'S INTERPRETATION OF SECTION  
624A(c)(2)(C) WILL SET A KEY PRECEDENT FOR THE NII.**

When customer premises telephone equipment was finally opened to competition, the Bell System was not given the option of maintaining a monopoly on all such equipment, but at less attractive rates of return. If this had been the case, U.S. leadership of worldwide technical and service industries would not be what it is. The Commission faces a similar choice today.

How many media services ultimately will enter the home as part of the NII? How many providers of cable/telephone/information/research/marketing services will not have security concerns over the data they sell? Is each information distributor to be allowed a monopoly over all of the hardware associated with the service?

Even assuming that the Commission's ingenious paragraph 30 (discussed below) works, in this particular case, to drive cable operators out of the decoder/descrambler business, or minimize the competitive features they build into such devices, it sets an unfortunate precedent. The "bundling" of consumer electronics goods with services makes the presence or absence of monopoly a function of economic considerations that are seldom transparent to regulators. It may work occasionally, where regulators can focus and coordinate their efforts and where all incentives are precisely understood.

For a national telecommunications infrastructure carrying data, entertainment and new services, however, bundling cannot succeed. There is too much temptation, and opportunity, to foreclose competition by bundling the price of the competitive article into that of the unique or restricted service. Even if cable operators do not succeed in attaining a monopoly, the effort forecloses competition and common standards, initially attainable, are no longer possible.

Cable operators should not be ceded the option of controlling either the set-top or the decoder/descrambler market just because they have a security concern over signal protection. If they are, now, allowed to bundle pricing for a key part of the NII, how can other program and information distributors be denied the same opportunity? What, then, happens to independent manufacture and sales of consumer electronics devices to consumers?

It is not as if competitive, side-by-side display of competing goods has been superseded technically by some more efficient means of competition. To the contrary, the competitive market would be squeezed out not by innovation, but by lack of imagination in allowing cable operators to satisfy their security concerns. The Commission cannot, and should not, escape the responsibility of encouraging open standards and open competition.

**III. THE APPROACH TAKEN IN PARAGRAPH 30 OF THE NOTICE MAY NOT BE EFFECTIVE IN DISCOURAGING CABLE OPERATORS FROM MONOPOLIZING THE DECODER/DESCRAMBLER MARKET.**

Paragraph 30 of the Notice still leaves the system operator a choice as to the features and functionality to be built into the decoder/descrambler devices that it is required to provide. While cable systems may wish they could charge separately for such features, they may nevertheless conclude that it is in their overall economic interest to include these features in the devices. By doing so they would retain control over profitable unregulated services, and preempt any market in providing these features through competitive hardware devices.

Commentators have described the battle for control of the consumer hardware/software digital interface as one of the next decade's great commercial wars. With integration of telephone and cable services, and the offering of new services presently unknown, cable and telephone operators will have a tremendous incentive to offer devices that are tailored to their own, or favored, new and unregulated services. The fact that their rate of return on the crucial interface equipment is regulated may faze them not at all.

What is at stake for consumer electronics retailers is nothing other than survival. As consumer electronics product categories converge, the functions of many or most may be folded into an all-important "set-top" interface. As decoder interface TVs and VCRs appear, and cable operators are required to provide descrambler/decoder modules, they

may (despite the rate disincentive) seek to extend their monopoly of the "set-top" market by building as many functions and features as possible into these decoder/descrambler devices. Rather than set a bad precedent and risk failure through indirection, the Commission should take clear, affirmative action to limit potential monopolies over both set-top and decoder/descrambler devices.

**IV. THE COMMISSION HAS MORE EFFECTIVE AND EFFICIENT MEANS AT ITS DISPOSAL TO SATISFY SECTION 624A(c)(2)(C).**

The CAG recommendations, on which the Notice is essentially based, accepted in principle that hardware functions ought to be provided in TVs, VCRs, and competitively procured ancillary equipment as time and technology allow. These recommendations stopped short, however, of spelling out specifically when a cable operator should or should not have the right to monopolize a particular hardware function or component.

There is no reason for such a right to be assumed, generally or specifically. A national digital standard for cable TV signals, whether it operates through set-top or decoder/descrambler devices, can and should include a renewable security system whereby software or, at most, a single chip or module, is all that need be supplied by the system operator. Until that day is reached, there are clearly non-security functions (decompression, program selection and menus) that can be provided either integrated

into new TVs and VCRs, or in "set-top" or "decoder/descrambler" equipment available on the open market. There is no reason to view, as the Notice does, either the set-top box or the "component descrambler/decoder" as an indivisible creature provided either solely by the monopoly or solely by the market.

To achieve its goals, the Notice should require that if a cable operator provides customer premises equipment, the operator must offer to consumers modules that perform only the security function that makes an operator monopoly necessary in the first place. For example, suppose that an operator provides a "box" (as either a set-top device or a decoder/descrambler module) that performs: (a) security, (b) digital decompression, and (c) menus and program selection, and suppose the operator offers consumers only this box. There would be little incentive for consumers to buy TVs or VCRs that integrate functions (b) and (c), and no possibility for retailers such as Circuit City to sell competitive "boxes" that perform (b) and (c).

Program operators asserting a need for monopoly over signal security function (a) ought to be required to offer that function in a separate module (a), to avoid redundancy with consumer electronics equipment capable of performing (b) and (c). Such compatibility with consumer electronics features is the driving force behind enactment of Section 624A and, with respect to "converter boxes," is specifically required by Section 624A(c)(2)(C). The compatibility

standards necessary to achieve this can and should be a subset of the ongoing work in the joint engineering committees referred to by the CAG.

Indeed, the Commission need not look far for a detailed illustration of how such a modular system could work. The Reply Comments of the Titan Corporation, filed in this proceeding on August 10, 1993, set forth such a system in detail. At page 5 of this filing, Titan argued:

[T]here is no security reason for the functions of demodulation, decoding and decompression to be duplicated within the decoder and the consumer electronics appliance, just as there are no reasons that the tuner/converter functions be duplicated. [A specific non-redundant implementation is then discussed.] \* \* \* It is not the widely published encryption method and decoder functions that determine the security strengths of a subscription security system. Rather, it is the physical security and the secrecy of the unit specific secret information, or keys embedded in the secure Access Control Unit. Hence, unlike some older cable scrambling systems, the security strength of modern well designed security systems do not rely on any secrecy pertaining to their design or construct. The wide availability of such information through a standard setting process cannot detract from its security. For the same reason, subscriber ownership of such subscriber equipment (and a competitive supply thereof) cannot degrade the security of the system. [Underscoring in original, bold emphasis supplied.]

Titan concluded that "decoders" can be produced according to a "published and accepted standard," with only the "Access Control Unit" supplied by the cable operator. As Titan observed, this result would specifically comply with the mandate of Section 624A:



The wide availability of such decoders from cable operators and retail vendors that are not affiliated with cable systems would thus be encouraged as required by Section 624A(c)(2)(C) of the Cable Act. Security modules or smart cards containing the Access Control Unit can be supplied by the cable companies in order to authorize and provide selective access to each subscriber.

While Titan's approach is specifically keyed to the "decoder/descrambler" proposal, it applies equally well to new set-top boxes.

The basic approach of allowing cable operators to monopolize only the hardware functions whose direct provision is truly essential to signal security may seem obvious. But there is no guarantee that even Paragraph 30 of the Notice would achieve it. The fault lies in the Notice's assumption that a cable operator may properly choose either to supply a device, with no separate cost recovery, that builds in competitive features, or to convert to a system that offers all channels "in the clear." Faced with such a stark choice, the system operator may indeed choose to supply the device that integrates both competitive and security features, leaving the consumer with little choice and leaving competitive manufacturers and retailers with no opportunity whatsoever. Such a result is the opposite of that intended by Section 624A(c)(2)(C).

In recognizing a middle ground, and avoiding a result contrary to the statute, the Commission need not immediately adopt Titan's, or anyone else's, specific system. It need only promulgate, for set-top boxes and decoder/descrambler

devices alike, the principles suggested at the beginning of this discussion as guides for the joint engineering committees that will be otherwise recommending standards for the decoder interface:

- (1) A standard needs to be set for digital cable TV transmission, including signal security;
- (2) only functions directly and necessarily related to security should be reserved to system hardware/software provided by the cable operator; and
- (3) functions that can be offered on a competitive basis must be available competitively, through the provision by the cable operator of compatible hardware or software modules that perform the security function only.

Thus, from the outset of the digital revolution, the consumer would have the option of procuring decompression, program menu, and other consumer electronics features in privately purchased TVs, VCRs, and ancillary devices, as the statute intends, rather than only from the cable operator, as the statute seeks to avoid.

There is no reason for the Commission to rely on the artifice of forcing the cable operator to "bundle" its charges. Indeed, such bundling ought to be prohibited, as it represents the last remaining threat to the competitive market. Nor should the operator be allowed to preempt the competitive market by charging the same price for a security module and an integrated multi-function device. By requiring operators to charge specifically and according to cost, the Commission can ensure that Section 624A(c)(2)(C) will not be frustrated.

### CONCLUSION

Circuit City appreciates both the Commission's intentions and its progress in this proceeding. It believes that with proper mandates and guidance, joint engineering committees easily can (a) recommend a national digital standard for cable TV transmission and security, and (b) incorporate specific interfaces between security and competitive functions into standards for new set-top boxes, and into the ongoing work on the decoder interface. It urges the Commission to require that this be done, rather than rely on broadly targeted economic considerations.

More generally, Circuit City sees this proceeding as setting the mold for a crucial aspect of the National Information Infrastructure. The wrong choice -- allowing information distributors unnecessary monopolies over hardware interfaces -- will damage not only consumers and industries, but important national objectives, as well.

Respectfully submitted,

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Dated: January 25, 1994